

ABSTRACT OF THE DISCLOSURE

The voltage applied to a first grid electrode 71 of an X-ray tube 11 by a grid voltage control section 110 is controlled with reference to a predetermined negative voltage from a negative voltage generating section 112 when an object 5 to be inspected does not exist in an imaging area (irradiation area of an X-ray from an X-ray source 1) so that the pulse outputted from a pulse generator 105 is in its OFF state, and is controlled with reference to a reference positive voltage from a reference voltage generating section 115 when the object 5 to be inspected exists in the imaging area in the X-ray image intensifier 2 (irradiation area of the X-ray from the X-ray source 1) so that the pulse outputted from the pulse generator 105 is in its ON state, whereby both of the cutoff voltage and grid operating voltage are applied in a stable state.